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convincing as to the value of the library to all parts of the school. The committees in charge of the various sections found that in many cases exhibits could be made to great advantage.

Following the sessions of the departmental sections, and in accordance with the custom of recent years, a conference of school and University administrative officers was held in the evening, at which two topics of current interest were discussed: (1) "The Granting of College Credit at the University of Chicago for Studies Completed in the High Schools in Excess of the Fifteen Units Required for Entrance to College"; (2) "Excess Credit for College Entrance for High-School Work Done at a High Level of Excellence." The former topic was presented by Dean Angell of the University of Chicago and Principal Sims of the High School at South Bend, Indiana. The second topic was presented by Principals Johnson of the University High School, Giles of DeKalb, Illinois, and Newlon of Decatur, Illinois.

It is not yet determined in what form a more detailed report of these sessions will be published. Appended here is the paper presented at the General Session by Mr. Arthur E. Bostwick, librarian, the St. Louis Public Library, St. Louis, Missouri.

SCHOOL LIBRARIES AND MENTAL TRAINING

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Is it more important in education to impart definite items of information or to train the mind so that it will know how to acquire and wish to acquire? To ask the question is to answer it; yet we do not always live up to our lights.

In the older methods the teacher, or rather his predecessors, decided what it would be necessary for the child to memorize, and then he was made to memorize, while still without appreciation of the need of so doing. We are perhaps in danger today of going to the other extreme. We require so little memorization by the student that the memory, as a practical tool of everyday life, is in danger of falling into disuse. It is surely possible for us to exercise

our pupils' memories, to develop them, and to control them, without giving them the fatal idea that memory is a substitute for thought, or that the assimilation of others' ideas, perfect though it may be, will altogether take the place of the development of one's own. There are still things that one must learn by heart, but since they must be retained below the threshold of consciousness, it is well that if possible they should also be acquired below that threshold. The problem of consciously learning a quantity of items of any kind and then relegating them to one's subconsciousness in such a way that they will be available at any given time is not, of course, impossible. Most of us have at our disposal many facts that we have learned in this way; but I venture to assert that most of us have lost a large proportion of what we thus acquired. Now a man never learns by rote the names of his relations, the positions of the rooms in his house, the names of the streets in his town. He has acquired them subconsciously as he needs them. When the human mind becomes convinced of the need of information of this kind "in its business," the acquiring comes as a matter of course. In a language, the paradigms may be learned unconsciously when the pupil sees that they are necessary in order to understand an interesting passage; the multiplication table and tables of weights and measures require no conscious memorization; or at least such memorization may be undertaken voluntarily as a recognized means to a desired end. I say these things may be done; I am sure that they are in many schools; I am equally sure that they were unheard of in my own boyhood; that is, as recognized methods in teaching. Of course, in spite of schools and teachers and methods, a vast amount of information and training has always been acquired in this way. I do not remember ever "learning to read" as a set task. I am sure that none of my children ever did so. We recognized the desirability of knowing how. We wanted to learn, and so we learned; that is all. Of course our teachers and parents and friends helped us along.

Is not this what the school is for—to make the pupil anxious to learn and then to help him? When all schools are conducted on this principle, we shall be very happy, but apparently it is not so simple as it would appear.

What we should try to approximate, at all events, is an emancipation from the thralldom of unwillingness on the part of the pupil—to bring it about that he shall desire to learn and will take what measures he can to do so, gladly availing himself of what help we can offer him.

I have said that what we need is to stimulate the pupil's desire and then to satisfy it. I have known teachers who were competent to do both—who could take an ignorant, unwilling pupil and make of him an enthusiast, thirsting for knowledge, in a few weeks. We all know of the ideal university whose faculty consisted of Mark Hopkins on one end of a log. I am sorry the creator of that epigram put his teacher on a log. There are plenty of logs, and, from this fact, too many persons, I am afraid, have leaped to the conclusion that there are also plenty of Mark Hopkinses. I fear that one trouble with educators is that, hitching their wagons to stars, they have assumed the possibility that terrestrial luminaries also are able to raise us to the skies. If we had a million Mark Hopkinses, and a million boys for them to educate, we should need only a sufficient quantity of logs; we should be forever absolved from planning schoolhouses and making out schedules, from writing textbooks and establishing libraries. As it is, we must do all these things. We must adopt any and all devices to arouse and hold the pupil's interest, and we must similarly seek out and use all kinds of machinery to satisfy that interest when once aroused. Of these devices and machines, the individual teacher, with or without his textbooks, lectures, recitations, laboratory work, and formal courses, is only one, and perhaps in some cases not the one to be preferred as the primary agent. Among such devices I believe that a collection of books, properly selected, disposed, and used, can be made to play a very important part, both in arousing interest in a subject and in satisfying it—in other words, in teaching it properly.

And first let us see what it may do to stimulate a general interest in knowledge. Of late I have seen cropping out here and there what seems to me a pedagogical heresy—the thesis that no kind of training is of value in fitting the pupil for anything but the definite object that it has in view. We can, according to this

view, teach a boy to argue about triangles, but this will not help him in a legal or business discussion. We may teach him to solve equations, and he will then be an equation-solver—nothing else. We may teach him to read Greek and he will then be some sort of a Greek scholar, but his reaction to other attempts to teach him will not be affected. Anything like a general training is a contradiction in terms. If this is true, a great part of what I am saying is foolish, but I do not believe it. Doubtless we have exaggerated the effect of certain kinds of training. The old college graduate who, having been through four years of Latin, Greek, and mathematics, considered himself able, with slight additional training, to undertake to practice law or medicine or manage a parish, was probably too sanguine. Yet I refuse to believe that a man's brain is so shut off in knowledge-tight compartments that one may exercise one part of it without the slightest effect on the others, I cannot now write with my toes, but I am sure that I could learn to do so much more quickly because I know how to use my fingers for the purpose.

And it is indubitable, I think, that the best general preparation for mental activity of whatever kind is contact with the minds of others—early, late, and often. It tones up all one's reactions—makes him mentally stronger, quicker, and more accurate. Some children get this at home, where there is a numerous family of persons who are both thoughtful and mentally alert. Some meet at home, besides members of the family, visitors who add to the variety of their contacts. Few get it in school, with much variety. And it is futile to expect most of our children to get it anywhere directly from persons. This being the case, it is wonderfully fortunate that we have so many of the recorded souls of human beings, between the covers of books. With them mental contacts may be numerous, wide, and easy. To interest a man in a stretch of country take him up to a height whence he may overlook it. There is a patch of woods, there a hill, there is a winding stream. He will see in imagination the wild flowers under the trees, the wind-swept rocks behind the hill, the trout in the stream. He will wonder, too, what unimagined things there may be, and he will long to find out. To interest a pupil in a subject, turn him loose in a room containing a hundred books about it. He will browse

about, finding a dozen things that he understands and a hundred that he does not. He will get such a bird's-eye view that his stimulated imagination will long for closer acquaintance. And if you want to interest him in the world of ideas in general, turn him loose in a general library. The things that he will get are not to be ascertained by an examination. They are intangible, but their results are not.

In an illuminating article on the events just preceding the present European war, Professor Munroe Smith holds that it was precipitated chiefly by bringing to the front at every step military rather than diplomatic considerations. The trouble with military men, he says, is that they take no account of "imponderables"—by which he means public opinion, national feeling, injured pride, joy, grief—all those things, intellectual and emotional, that cannot be expressed in terms of men, guns, supplies, and military position. I have been wondering whether some other technically trained persons—educators, for instance, do not tend toward a similar neglect of imponderables, measuring educational values solely in terms of hours, and units, and the passing of examinations. It is a fault common to all highly trained specialists. The Scripture has a phrase for it, as for most things—"ye neglect the weightier matters of the law—judgment and faith." These, you will note, are to be classed with Professor Munroe Smith's "imponderables," whereas mint, anise, and cummin are commercial products.

At least one noted educator, William James, did not make this error, for he bids us note that the emotional "imponderable"—though he does not use this word—possesses the priceless property of unlocking within us unsuspected stores of energy and placing them at our disposal. "I thank thee, Roderick, for the word," says Fitz-James in "The Lady of the Lake": "it nerves my heart; it steels my sword." One would hardly expect to find educational psychology in Scott's verse, but here it is. The word that Roderick Dhu spoke (I forget just what it was, but I think he called his rival a bad name) unlocked in Fitz-James an unexpected store of reserve energy, and the result, as I recall it, was quite unfortunate from the Gaelic point of view. We cannot afford to neglect the imponderables; and it is their presence and their influence that

are fostered by a collection of books. If you will add together the weight of leather, paper, glue, thread, and ink in a book you will get the whole weight of the volume. There is naught ponderable left; and yet what is left is all that makes the thing a book—all that has power to influence the lives and souls of men—the imponderable part, fit for the unlocking of energies.

I would not have you think, although I believe this to be at bottom a matter of principles, that it is not possible to apply these principles very directly and concretely in the daily practice of an educational institution. I desire to call your attention for a moment to the testimony of one who has had great experience and practice in the administration of a collection of books in such an institution and in their use for the purposes already outlined—Mr. Frederick C. Hicks, assistant librarian of Columbia University, New York City, from whose recent review article on this subject I propose to quote a few paragraphs. Mr. Hicks is writing primarily of college instruction, but, as he notes in the first paragraph that I shall quote, what he says applies with equal cogency to the secondary school. He writes:

The general tendency in all instruction today, including even that in preparatory and high schools, is from what may be called the few-book method to the many-book method—a recognition of the power of the printed page for which librarians have always stood sponsor. The lecture, note-taking, text-book and quiz method of instruction is fast passing away in undergraduate as well as in graduate study. Textbooks are still in use in undergraduate and Master of Arts courses, but they have been relegated to a subordinate position. Emphasis is laid on work done and the assimilation of ideas gathered from many sources rather than upon memorizing the treatise of one author. Necessarily, references are chiefly to easily accessible works of secondary authority, and reading instead of research is the objective.

From the library point of view, the growth of the laboratory or case method of instruction appears to be an independent phenomenon. It should be noticed, however, that coincident with it is the general tendency to adopt a policy of teaching each subject with emphasis on its relations to other subjects.

Most universities now give courses for which no textbook is available. For instance, Professor Frederick J. Turner, of Harvard University, announces in a syllabus of 116 pages that there is no textbook suitable for use in his course on the History of the West in the United States. He thereupon gives citations to about 2,100 separate readings contained in 1,300 volumes, and says that his course requires not less than 120 pages of reading per week in

these books. Professor James Harvey Robinson's course in Columbia University on the History of the Intellectual Class in Western Europe has no textbook, and the reading for a class of 156 students is indicated in a pamphlet of 53 pages, containing references to 301 books. Illustrations could be taken from almost any subject in the university curriculum.

This is essentially a teacher's view. Listen now to that of a public librarian, Mr. John Cotton Dana, of Newark, New Jersey. He says:

In our high schools we spend literally millions of dollars to equip laboratories, kitchens, carpenter shops, machine shops, and what not, to be used by a small part of the pupils for a small part of the short school day. This is partly because so to do is the fashion of the hour, partly also because the products of work in those shops, kitchens, and laboratories can be seen, touched, and handled, are real things even to the most unintelligent.

For books, the essential tools of every form of acquisition, we spend, outside of textbooks, a few paltry thousands. The things a child makes we can see, and we are impressed by them; the knowledge he gains, the power of thought he acquires—these cannot be made visible and are not appreciated by the ignorant; they can only be certified to by the teacher and demonstrated by the student's words and deeds as he goes through life.

Mastery of print is mastery of world-knowledge. Our young people do not have it. Surely they should be led to acquire it, and where better than in the high schools? To aid them in this acquisition the high schools should have ample collections of books, and these collections of books should become active teaching organisms through the ministrations of competent librarians.

Of all teaching laboratories, there is one which is plainly of supreme importance—that of books.

I trust that you are with me so far; for I am about to make a further advance that experience teaches me is very difficult, except for librarians. I am going to urge that your collection of books, when you have made it, be put in charge of one who has studied the methods of making the contents of books available to the reader—their shelving, physical preparation, classification, cataloguing; the ways in which to fit them to their users, to record their use, and to prevent their abuse. This means a trained librarian.

In all departments where expert knowledge and skill are necessary it is difficult to explain to a non-expert the reasons for this necessity and exactly in what the expert knowledge consists. We are so accustomed to accept the fact in certain departments

that it passes there without question. Unfortunately that is not the case with the selection and administration of a library. Most persons understand quite well that special training is necessary before one can practice law, or medicine, or engineering. No one would undertake to drive a motor car or even ride a bicycle without some previous experience; but it is quite usual to believe that a collection of books may be administered and its use controlled by totally untrained and inexperienced persons—a retired clergyman, a broken-down clerk, a janitor, perhaps. I once asked a young woman who came for advice about taking up library work what had inclined her toward that particular occupation. She was quite frank with me; she said: “Why, my father and mother didn’t think I was good for anything else.” This estimate of the library is by no means confined to the parents of would-be library workers. And even where it is recognized that some training and experience are necessary in administering a large public institution, there is a lingering feeling that a comparatively small collection, like that in a school, needs no expert supervision. The fact that there are in a school plenty of experts in other lines seems to have been not without its effect on this attitude. “Why, Professor Smith is one of the best chemists in the state; Miss Jones is an acknowledged authority on oriental history; do you mean to tell me that either of them would not make a perfectly satisfactory librarian?” Which is something like saying, “Mr. Robinson is our foremost banker; should he not be able to superintend the dyeing department in a textile mill?” Or, “Rev. Mr. Jenkins is our most eloquent pulpit orator; he can surely run the 2:15 express!”

Are my metaphors too violent? I think not. We are dealing here with imponderables, as I have said, but the most imponderable thing of all, and the most potent, is the human mind. To wield, concentrate, and control our battery of energies, we want a correlated energy—one whose relations to them all are close and one who knows how to pull all the throttles, turn all the valves, and operate all the mechanism that brings them into play. It takes two years of hard work, nowadays, for a college graduate to get through a library school, and it should not be necessary to argue that during these two years he is working hard on essentials and is

assimilating material that the untrained man however able, cannot possibly acquire in a few months' casual association with a library or from mere association with books, no matter how long or how intimate. You will pardon me, I am sure, some further quotation from Mr. Hicks's illuminating article. After calling our attention to the fact that the effort to meet changing conditions in instruction is purely technical, he goes on:

The librarian stands in the position of an engineer to whom is presented a task which by the methods of his profession he must perform. Numerical growth, expansion, addition of new schools and new subjects, and the introduction of the laboratory method by which books are made actual tools for use, all mean to the librarian more books, larger reading-rooms and more of them, a large staff specialized and grouped into departments, the supervision of a complicated system, and capable business administration. These are all technical matters and are of sufficient magnitude to require all of the time and strength of those to whom they are entrusted. . . .

In a reference library, open shelves, whether in department libraries or in the general library, require much high-grade library service. The reference librarian becomes a direct teacher in the use of books and gives constant assistance not merely in finding separate books but in dealing with the whole literature of a subject. . . .

The whole development from the few-book method to the many-book method presupposes a system of reserve books. By this expression is meant the placing of a collection of books behind an enclosure of some kind from which they are given out by a library assistant for use in the room. The reserve collections, continually changing in accordance with the directions of instructors, are in reality composite textbooks. . . .

The mere clerical work of maintaining an efficient reserve system is large, its success being dependent upon intelligent co-operation between the teaching faculty and the library, but it involves also a technical problem to be solved by the librarian. What relation does the number of copies of a given reserve book bear to its use? To put the question concretely, how many copies of a book are required to supply a class of 200 students, all of whom must read thirty pages of the book within two weeks?

I like so much one of Mr. Hicks's expressions that I desire to emphasize it at the close of what I am saying. A library, used for teaching purposes in a school, is indeed "a composite textbook." It insures contact with a composite instead of a single mind. The old idea was that contact of this kind always resulted in confusion—in mental instability. There was a time when the effort was to protect the mind through life from any such unbalancing

contact. The individual was protected from familiarity with more than one set of opinions—religious, political, social, philosophical, scientific. He was taught facts as facts and no emphasis was placed on the more important fact that there are degrees of certainty and points of view. The next step was to give the individual a free head after the formal processes of education had terminated. Getting out of college was like escaping from a box, where one had been shut up with Presbyterians and Free Traders and Catastrophists and Hegelians—or their opposites, for the contents of all the boxes were not alike. Now, we set the boy free when he enters college and this meeting is an evidence that we are beginning to give him a little fresh air in the high school. Why not go back to the beginning? Why not, at any rate, avoid the implication that there is the same backing behind all that we teach or tell? Some teachers, and some parents, have made this plan succeed. One of them is Mr. H. R. Walmsley, who writes in the *Volta Review* (Washington, April, 1915), on "How I Taught My Boy the Truth." Says he:

I pondered over these things, and determined that I would never tell a falsehood to my child; that I would tell him the truth upon every subject, and that I would not evade or refuse to answer any question. I kept my resolution and have obtained most excellent results. The child doubted nothing I told him. He knew that as far as I was able I would reply truthfully to any question he might care to ask. In answering him I was always careful to qualify my statements thus: "This is so," "I believe so," "It is believed to be," "It is claimed to be," "Those who should know say," etc. So he knew the basis from which I spoke. Throughout his life, when he was told anything that looked doubtful, he would say, "I will ask father."

This plan is practicable from the child's earliest years. As soon as he learns to read we may begin to supplement it by reference to original documents. This means a library at the very beginning, and at high school age it means a large library. It need not all be in the school. In the smallest towns there are now respectable public collections; the school may confine itself to the subjects in its own curriculum. But whatever we do, let us not teach the child, with the implication of equal authority, that twice two is four, that material bodies are composed of molecules, and that the Tories in the Revolution were all bad. Tell him that there are other aspects, if they exist, and as soon as he is able let him ex-

amine those aspects. He will be able far sooner than some of us are willing to admit.

We librarians feel somewhat strongly on this matter because our own institutions possess by their very nature that form of neutrality that exposes both sides without advocating either. It seems to be assumed by some persons that neutrality means ignorance. Of course, ignorance is one method of insuring it. If a fairy story opens with the announcement that the King of Nowaria is at war with the Prince of Sumboddia, you cannot take sides until you know something about the quarrel. The trouble is that we do not live in fairyland. In my home city the school authorities have been trying to cultivate this kind of neutrality by cautioning principals not to discuss the European war with their pupils. What is the result? One of my branch librarians says in a recent report: "I have been greatly interested by the fact that the high-school boys and girls never ask for anything about the war. Not once during the winter have I seen in one of them a spark of interest in the subject. It seems so strange that it should be necessary to keep them officially ignorant of this great war because the grandfather of one spoke French and of another, German." With this I thoroughly agree. I am not sure that I do not prefer thorough and bigoted partisanship to this neutrality of ignorance. Better than both is the opportunity for free investigation with enlightened guidance. The public library offers the opportunity for the fullest and freest contact with the minds of the world. We try to give guidance, also, as we can; but we have not the opportunities of you teachers. Guidance is your business and your high privilege; and if some of you have in the past guided as the jailer guides his prisoners—for a walk around the prison yard with ball and chain—let us be thankful that this oppressive view is giving place to the freer idea of a guide as a counselor and friend. Such guidance means intellectual freedom. Freedom means choice, and choice implies a collection from which to choose. This means a library and the school library is thus an indispensable tool in the hands of those teachers to whom education signifies neutral training, the arousing of neutral energies, and a control of the imponderables of life—those things without physical weight which yet count more in the end than all the masses with which molecular physics has to deal.